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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/814,161

04/01/2004

Kazuhito Kishi

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02/06/2006

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EXAMINER

ROYER, WILLIAM J

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/814,161

Applicant(s)

KISHI ET AL.

Examiner

William J. Royer

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-36 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12012005; 11142005; 02182005; 08162004
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

This application is in condition for allowance except for the following formal matters:

***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The disclosure is objected to because of the following informalities:

In Figure 2, reference numeral "95" is shown, however, reference numeral "95" does not appear to be identified in the specification.

In Figure 15, reference numerals "103", "105" and "114" are shown, however, none of the noted reference numerals appear to be identified in the specification.

On page 2, lines 7-8, delete --- , and more particularly to ---.

On page 4, line 7, after "determining" insert --- a ---.

On page 4, line 7, after "of" insert --- a ---.

On page 5, line 5, delete --- controlled ---.

On page 6, line 13, delete --- controlled ---.

On page 7, line 22, delete --- controlled ---.

On page 9, line 10, delete --- controlled ---.

On page 10, line 17, delete --- controlled ---.

On page 10, line 21, change "the power" to --- power ---.

On page 10, line 23, change "receiving the" to --- of receiving ---.

On page 11, line 15, delete --- controlled ---.

On page 11, line 19, change "the power" to --- power ---.

On page 11, line 21, change "receiving the" to --- of receiving ---.

On page 12, line 20, delete --- controlled ---.

On page 12, line 24, change "the power" to --- power ---.

On page 13, line 1, change "receiving the" to --- of receiving --.

On page 13, line 25, delete --- controlled ---.

On page 14, line 4, change "the power" to --- power ---.

On page 14, line 6, change "receiving the" to --- of receiving ---.

On page 14, line 23, change "which receiving" to --- which receive ---.

On page 14, line 24, delete --- controlled ---.

On page 15, line 1, change "receiving the" to --- receiving ---.

On page 15, line 3, change "receiving the" to --- of receiving ---.

On page 15, line 9, change "said" to --- the ---.

On page 15, line 16, after "control" insert --- of ---.

On page 15, line 23, change "receiving power controlled" to --- receive power ---.

On page 16, lines 1 and 3, change "the power" to --- power ---.

On page 16, line 16, after "control" insert --- of ---.

On page 19, lines 7 and 11, after "determining" insert --- a ---.

On page 19, lines 8 and 12, before "temperature" insert --- a ---.

On page 19, line 11, change "the method" to --- a method ---.

On page 20, line 17, change "by the" to --- by an ---.

On page 21, lines 5 and 7-8, change "the power" to --- power ---.

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On page 24, line 17, change "The" to --- A ---.

On page 29, line 7, before each occurrence of "temperature" insert --- a ---.

On page 30, line 15, change "1" to --- 10 ---.

On page 30, lines 18, 20, 21 and 23, change each occurrence of "pressing" to --- pressure ---.

On page 31, lines 1, 5, 7, 9 and 16, change "pressing" to --- pressure ---.

On page 31, line 19, after "capable" insert --- of ---.

On page 31, line 25, change "sensor" to --- sensors ---.

On page 34, line 16, after "OFF" insert --- ) ---.

On page 35, line 17, change "detector" to --- sensor ---.

On page 39, line 24, change "detector" to --- sensor ---.

On page 42, line 15, change "heater 11" to --- heaters 41 and 43 ---.

On page 42, line 17, after "OFF" insert --- ) ---.

On page 43, line 18, change "detector" to --- sensor ---.

On page 43, line 24, change "is" to --- are ---.

On page 45, line 11, change "heats" to --- heat ---.

On page 50, line 7, change "heats" to --- heat ---.

On page 51, line 21, change "heats" to --- heat ---.

On page 53, line 10, change "heats" to --- heat ---.

On page 54, line 25, change "detector" to --- sensor ---.

On page 55, line 17, after "roller" insert --- 1 ---.

On page 55, line 20, change "the power" to --- power ---.

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On page 57, line 9, change "16" to --- 15 ---.

On page 57, line 12, change "photoconductor" to --- photoconductive ---.

On page 57, line 15, reference character "L" is used to identify a laser beam, however, reference character "L" does not appear to be shown in any of the figures.

On page 58, line 1, change "pressing" to --- pressure ---.

On page 60, line 24, change "heaters" to --- heater ---.

On page 65, line 15, delete --- controlled ---.

On page 65, lines 17 and 19, change "the power" to --- power ---.

On page 65, line 18, change "from the" to --- from a ---.

On page 65, line 19, after "capable" insert --- of ---.

On page 65, line 19, change "from the" to --- from an ---.

On page 65, line 20, change "as the" to --- as a ---.

On page 67, line 5, delete --- controlled ---.

On page 67, lines 7 and 9, change "the power" to --- power ---.

On page 67, line 8, change "from the" to --- from a ---.

On page 67, line 9, after "capable" insert --- of ---.

On page 67, line 9, change "from the" to --- from an ---.

On page 67, line 10, change "as the" to --- as a ---.

On page 67, line 19, change "31" to --- 13 ---.

Appropriate correction is required.

***Claim Objections***

Claims 1, 6, 15-17, 25, 33-36 are objected to because of the following informalities:

Claim 1, line 10, delete --- controlled ---.

Claim 6, line 10, delete --- controlled ---.

Claim 15, line 16, delete --- controlled ---.

Claim 16, line 16, delete --- controlled ---.

Claim 17, line 10, delete --- controlled ---.

Claim 17, line 17, after "capable" insert --- of ---.

Claim 25, line 10, delete --- controlled ---.

Claim 25, line 17, after "capable" insert --- of ---.

Claim 33, line 16, delete --- controlled ---.

Claim 33, line 23, after "capable" insert --- of ---.

Claim 34, line 16, delete --- controlled ---.

Claim 34, line 23, after "capable" insert --- of ---.

Claim 35, line 5, change "receiving" to --- receives ---.

Claim 35, line 5, delete --- controlled ---.

Claim 35, line 10, after "capable" insert --- of ---.

Claim 36, line 5, change "receiving" to --- receives ---.

Claim 36, line 5, delete --- controlled ---.

Claim 36, line 10, after "capable" insert --- of ---.

Appropriate correction is required.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

***Allowable Subject Matter***

Claims 1-5 and 15 are allowable over the prior art of record because the prior art of record fails to teach or suggest a fixing unit that includes at least one first heater, of a plurality of heaters, having a state which generates no heat in response to power supplied from a first power supply even during an operation of the fixing unit and remaining second heaters, of the plurality of heaters, being capable of constantly generating heat in response to power supplied from a second power supply during the operation of the fixing unit with one of the second heaters closest to a temperature detecting position being the same distance from the temperature detecting position as or is closer to the temperature detecting position than a first heater which is closest to the temperature detecting position.

Claims 6-14 and 16 are allowable over the prior art of record because the prior art of record fails to teach or suggest a fixing unit that includes at least one first heater, of a plurality of heaters, receiving power from a first power supply and remaining second



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heaters, of the plurality of heaters, receiving power from a second power supply which is different from the first power supply with one of the second heaters closest to a temperature detecting position being the same distance from the temperature detecting position as or is closer to the temperature detecting position than a first heater which is closest to the temperature detecting position.

Claims 17-24 and 33 are allowable over the prior art of record because the prior art of record fails to teach or suggest a fixing unit that includes at least one first heater, of a plurality of heaters, being capable of receiving power from a battery and remaining second heaters, of the plurality of heaters, being capable of receiving power from an external power supply with a temperature distribution of the surface temperature when the first heater is ON and a temperature distribution of the surface temperature when the first heater is OFF having a difference which is smaller than a predetermined value at a temperature detecting position.

Claims 25-32 and 34 are allowable over the prior art of record because the prior art of record fails to teach or suggest a fixing unit that includes at least one first heater, of a plurality of heaters, being capable of receiving power from a battery and remaining second heaters, of the plurality of heaters, being capable of receiving power from an external power supply with a temperature distribution of the surface temperature when

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no first heater is provided and at least one of the second heaters is turned ON and a temperature distribution of the surface temperature when the first heater is provided and at least one of the second heaters is turned ON having a difference which is smaller than a predetermined value at the temperature detecting position.

Claims 35 and 36 are allowable over the prior art of record because the prior art of record fails to teach or suggest a method of determining a temperature detecting position of a temperature sensor which is configured to detect a surface temperature of a fixing member having a plurality of internal heaters which receive power based on the surface temperature detected by the temperature sensor with at least one first heater receiving power from a battery and remaining second heaters receiving power from an external power supply.

#### ***Relevant Prior Art***

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Atsushi et al disclose a fixing device that includes a controller that controls a switch such that an electric double-layer capacitor connects to or disconnects from a heater based on comparing a temperature sensed by a temperature sensor to a temperature threshold value.

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Sato et al disclose a fixing unit that includes a power control unit that controls a power supply from an auxiliary power supply to the fixing unit.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Royer whose telephone number is (571) 272-2140. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William J. Royer  
Primary Examiner  
Art Unit 2852

wjr  
February 3, 2006